

**P-40****Comparison of Hypotensive Effect of *Azadirachta Indica* Extract with Antihypertensive Drugs in Spontaneously Hypertensive Rat**

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Studies on *Azadirachta indica* (Neem) leaf extracts in animal models shown to reduce the blood pressure. Therefore in this study, the hypotensive effect of Neem extract was compared with three classes of antihypertensive drugs : Clonidine , Enalapril and Amlodipine on systolic blood pressure (SBP) in Spontaneously Hypertensive Rat (SHR). SHR were divided into five groups [SHR, SHR+Clonidine, SHR+Enalapril, SHR+Amlodipine and SHR+Neem) and n=6/group. Rats were administered with Clonidine ( $0.5 \text{ mg kg}^{-1} \text{ day}^{-1}$ ), Enalapril ( $30 \text{ mg kg}^{-1} \text{ day}^{-1}$ ), Amlodipine ( $10 \text{ mg kg}^{-1} \text{ day}^{-1}$ ) in drinking water and Neem [2.5% (w/v) aqueous extract daily] from 4 weeks until 28 weeks. Normotensive Wistar Kyoto (WKY) rats were served as control . SBP was measured in all groups during the experimental period at 4, 10 , 16, 22 and 28 weeks. Hypertension was indicated to be present in SHR at 10<sup>th</sup> weeks onwards as the SBP of SHR was significantly higher when compared to WKY. Neem extract had the similar hypotensive effect as antihypertensive drugs at 10 weeks, with significant reduction in SBP of drug treated SHR when compared to untreated SHR ( $p < 0.001$ ). At 16 weeks and 22 weeks, the hypotensive effect neem extract was still present ( $p < 0.001$ ) but was reduced. However, the hypotensive effect was diminished at 28 weeks whereas antihypertensive drugs treatment showed significant reduction in SBP when compared to untreated SHR. The results of this study showed that Neem extract has hypotensive effect on SHR only at an early stage of hypertension unlike the antihypertensive drugs.

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